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Integrated Pest Management Program
Progress Report, April 2000
 Debbie Raphael, Pesticide Program Coordinator

DOCUMENTS DEPT.

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Program Assessment

On August 1 of this fiscal year the Department of the Environment (DEnv) hired a Pesticide Program Coordinator to assess the current state of the City's IPM Program and to facilitate improvements in program elements and compliance with the IPM Ordinance. San Francisco's IPM program is based on a solid foundation. Many staff have demonstrated a commitment to try new techniques and have developed an increased awareness around the use of chemical pesticides on city property. While the program has been split between the Ag. Commissioner's office and the Department (DEnv) caused a lack of cohesion and leadership was not provided. The program within the DEnv has allowed program staff to provide and coordinate the efforts of the various departments to work toward

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ordinance along with discussions among members of the Technical Advisory Committee (TAC) revealed several areas where changes to the ordinance were needed to clarify roles and facilitate implementation of the IPM Ordinance. The ordinance was developed closely with the City Attorney's office and aides to the Board of Supervisors for the ordinance. The resulting revisions include:

- Microbials (language prepared before my arrival)
- Notification and posting
- Commission on the Environment (COE) as over-sight body
- Exemption process
- Increasing frequency and content

The revised ordinance language was adopted by the County Board of Supervisors and went into effect February 14, 2000.

Approved List

Under the terms of the IPM Ordinance a list of "reduced risk" pesticides must be completed by January 1, 2000 and must be approved by the Commission on the Environment. Only pesticides on this list may be used on City property unless an exemption has been granted by the DEnv.

An extensive process was implemented involving community members, City staff, IPM experts, the Commission on the Environment, and the technical evaluation skills of Dr.

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Ordinance Revisions

Careful review of the IPM ordinance along with discussions among members of the Technical Advisory Committee (TAC) revealed several areas where changes to the ordinance language would clarify roles and facilitate implementation of the IPM program. DEnv staff worked closely with the City Attorney's office and aides to Supervisor Katz to draft revisions for the ordinance. The resulting revisions include:

- Anti-microbials (language prepared before my arrival)
- Notification and posting
- Role of Commission on the Environment (COE) as over-sight body
- Emergency exemptions
- Reporting frequency and content

The revised ordinance language was adopted by the County Board of Supervisors and went into effect February 14, 2000.

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Philip Dickey of the Washington Toxics Coalition. A complete summary of this process is contained in the IPM Program Report – Reduced Risk Pesticide List 2000, submitted previously to the Commission on the Environment.

The reduced risk pesticide list is meant to be a dynamic document and will be reviewed on an on-going basis to incorporate new pesticide products and to remove un-needed ones. Any changes to the list will be brought before the Commission on the Environment for approval.

Data Collection and Analysis

A clear understanding of how much and what types of chemical pesticides are used on City property is a key element in the evaluation of the success of this IPM Program. A database was developed to track pesticide use but until recently no data had actually been entered into the system. Much of the data is in hard copy form and DEnv staff have discovered significant holes and inconsistencies with that data. Staff have been working with the contributing departments to fill in the data gaps and address inconsistencies.

Entry of pesticide use data for the Recreation and Parks Department (Rec/Parks), the department with the biggest pesticide use, is complete and a summary of use trends is included as an attachment to this report.

In addition, DEnv staff are working with ISD to update and redesign the city's current pesticide database system to track non-chemical methods of pest control such as prevention efforts and trapping. Adding this type of information will transform the database into a more accurate reflection of an IPM program.

Pesticide Inventory and Disposal

While the most toxic and hazardous pesticides have been eliminated from use on City property, containers of these pesticides still existed on City storeroom shelves. DEnv staff worked with City departments to survey storage facilities and identify pesticide products no longer allowed the IPM program and then helped facilitate the timely and legal disposal of these products. The most significant area of concern was the storeroom for Rec/Parks in Golden Gate Park. Rec/Parks staff segregated the non-compliant products and have arranged for their removal.

The departmental IPM Coordinators from each of the seven "big user" departments have been notified about this issue and were asked to complete pesticide inventories at each of their sites to ensure that all noncompliant pesticides are removed from their property.

Contract Development

All in-door (structural) pest control is performed by outside contractors except in the Rec/Parks Department. The pest control bid is up for renewal in May, 2000 (after a 6-month extension to the current contract granted by Purchasing this Fall). This affords us

the perfect opportunity to address shortcomings in the prior contract language and selection process.

DEnv staff have been meeting regularly with Purchasing staff to craft a selection process that rewards excellent IPM services rather than simply low bid. Purchasing staff have suggested using a Request for Proposal (RFP) process where price will be only one qualifying factor. Experience in IPM implementation will be weighted heavily as well as the capacity to supply DEnv with up to date pesticide use data for each site. One potential strategy being considered is to qualify three vendors as approved pest control contractors. Each department will be free to choose from these approved contractors after completing their own bidding process that focuses on specific departmental needs.

Representatives from the "big user" departments like DPW, Public Health, MUNI, Police and Fire will be brought into the contract language development process as well as the selection process. DEnv staff are working closely with Purchasing and an independent IPM expert to come up with the draft of the RFP language.

Training/Conferences

One key component of all IPM programs is the importance of on-going training for city staff at all levels. DEnv staff have been working with City departments to organize and coordinate a variety of training opportunities. All training events and conferences are free of charge to participating departments and are funded from the DEnv IPM budget.

TAC Meetings: Each month representatives from the seven "big user" departments meet to discuss implementation of the IPM program. Participants include departmental IPM Coordinators, safety and environmental compliance staff, pest control contractors, independent IPM experts, and community members. The Pesticide Program Coordinator from DEnv chairs these meetings and sets the agendas.

Topics have included guest speakers on pesticide regulations, new products and techniques, changes to the IPM Ordinance, training planning, and pesticide reporting requirements. Most importantly, these meetings offer the opportunities for departments to share experiences around pest control so that others can learn from their mistakes and successes. For example, the airport has reported on their monitoring and feedback system, and PUC presented the manuals developed for them by Sheila Daar – copies were handed out to all TAC members, and Public Health discussed their Communications Audit.

IPM Conference: This annual event was held on April 4th. Traditionally conference attendees have been primarily City staff but with the widespread regional interest in IPM programs, many surrounding jurisdictions and school districts sent representatives. Participants came from Los Angeles, Santa Barbara, Santa Clara, Alameda, Marin, and Sonoma counties. Speakers came from universities in Oregon and Southern California. The San Francisco Bay Area is lucky to have a large pool of IPM expertise and many of

these professionals will be leading sessions at the conference. The conference is free to all participants. About 125 people were in attendance.

The agenda for the conference was based on input from members of the TAC Committee as well as suggestions from IPM Professionals. Topics included:

- Use of Compost Tea to replace fungicides
- Biology and control of Argentine Ants
- Use of mulches and soils analysis to prevent weeds
- Mechanical means of vertebrate control
- Dealing with "phantom" pests

Site Specific Workshops and Training: Several departments offer pesticide safety training to their staff who apply chemical pesticides on City property. DEnv staff are working closely with the departments to bring in outside experts as speakers and to arrange for professional credit issued by the Department of Pesticide Regulation.

Training sessions held to date have serviced the following departments:

Rec/Parks:	140 participants
PUC:	60 participants
Airport:	20 participants

Public Health is planning training sessions for all custodial staff and for the supervisors identified by the departmental IPM Coordinator as being critical to their pest control and prevention process. About 150 staff are expected to be reached in this training.

DEnv will work with the Port and Department of Public Works, and MUNI to identify training needs and opportunities.

Community and Regional Outreach

Web Site – The IPM Program's IPM Web Site is now up and running. The site can be accessed through the City's Web Page as well as through the DEnv web site at sfenvironment.com. The goal of the IPM Web Site is to allow easy access to documents produced by the program and to serve as a hub from which people can gain access to a wide array of pest-related information.

Eventually, DEnv staff would like to see pesticide use information accessible to residents from this web site. For example, a parent would be able to determine if any pesticides had been applied to their neighborhood park. ISD staff have discussed converting the current database to an internet version but the undertaking is not trivial and will require a financial commitment of the IPM Program's budget.

Interdepartmental Coordination – Several other City departments implement efforts that share common themes with the IPM Program. For example, the PUC is crafting an outreach program aimed at pest control contractors to try to prevent pesticide run off into

the City's storm drains and sewer system. The Water Conservation Program addresses water and pesticide use for landscape professionals. The Pesticide Partnership is another PUC driven program but is aimed at the resident by placing in-store information on less toxic pest control at selected retail outlets. The PUC also works with SLUG to train master gardeners. The Natural Areas Program out of the Rec/Parks Department trains volunteers to remove non-native plants to avoid the need for chemical controls.

In order to coordinate all these efforts, to reduce overlap, and to facilitate partnerships between departments DEnv Staff have created the San Francisco Pesticide Working Group. This group has met once and will be meeting on a regular basis to share information and plan interdepartmental projects. One such project may be the sponsorship of a teacher training summer IPM workshop that will encourage the creation of school gardens while learning about non-chemical pest control methods.

Community Events – The IPM Program sponsored and staffed a booth at the San Francisco Flower and Garden Show in March. The booth highlighted alternative pest control strategies. Approximately 3,000 visitors were reached at our booth. Additional opportunities for community outreach will be explored especially through the SF Pesticide Working Group.

Written Materials - This area is becoming increasingly important as San Francisco's IPM program matures. Currently there is a real dearth of accurate and timely information about our IPM program. DEnv Staff have updated some of the summary materials found in the Implementation Notebook and need to look at the document in its entirety.

In addition, DEnv Staff along with Gregg Small of Pesticide Watch wrote an article for NCAMP's Journal of Pesticide Reform. The journal has a national distribution and the article summarizes San Francisco's program accomplishments and challenges over the past three years.

Presentations and Partnerships - DEnv staff have been invited to speak about San Francisco's IPM Program within the City at community groups and PUC seminars, and at the Annual Urban IPM Conference at the University of California, Riverside. Interest in the San Francisco program crosses the nation and limitations of staff time and resources restrict the department's ability to meet all the requests for conference participation.

San Francisco is serving as a model for jurisdictions and school districts across the country. DEnv Staff have been working to help draft IPM legislation and develop workable programs in the Counties of Marin and Santa Clara, the City of Oakland, and school districts in San Francisco, Marin, Oakland, and San Leandro. In addition, San Francisco IPM staff have been asked to advise the Federal Environmental Protection Agency Region 9 about implementing a national school IPM program. The City of Santa Fe, New Mexico is also using San Francisco as a template for their own IPM efforts.

Departmental Needs

While all City departments are covered by the IPM Ordinance and are mandated to have Pest Management Plans on file with the DEnv, the focus of staff efforts have been on the compliance of the "big seven" departments. Pest control for all other City departments is performed by outside contractors. The Contract Development section of this report outlines the changes and improvements planned for working with outside contractors.

MUNI – Compliance with structural use of pesticides is excellent and the "rolling stock" (buses, trains, cable cars, etc) are a model of IPM methods that should be published and broadcast to transportation agencies throughout the country. The landscape division needs to make improvements on notification/posting. Training of site managers and station agents (mice) will be address later this year. Have only a rough IPM plan for landscape use of pesticides and are missing a departmental IPM plan. DEnv staff have met with the appropriate staff in the ISLPP department of MUNI and will aid them in the development of an IPM plan by the end of this fiscal year.

Airport – The San Francisco International Airport has an excellent IPM program in both buildings and landscaped areas. A well-defined chain of command results in timely structural repairs and hence an effective pest prevention program. A pest management plan is on file with DEnv and Airport Staff conduct annual safety training that includes IPM principles.

While City maintained property is fully compliant with the IPM Ordinance the many tenants are not. The ordinance requires only that these entities become compliant upon renewal of their lease agreements. Because of the long-term nature of most leases, DEnv staff will need to explore voluntary participation in the IPM Program.

One area of future concern is the challenge of maintaining the additional landscaped areas resulting from the airport's expansion. Herbicide use on Airport property may show a marked increase if weed prevention methods are not incorporated into landscape designs.

Port – Like the Airport, property maintained by the San Francisco Port is in full compliance with the requirements of the IPM Ordinance. One area that presented a problem was in reporting of landscape pesticide use to the DEnv. Port landscape staff were not given a computer until very recently. Port staff should be submitting electronic use reports on a monthly basis, as required under the ordinance, within the next few weeks.

Again, many properties that are administered under the Port are not maintained by City staff. The Port has an extensive leasing department and DEnv staff are working with this group to ensure inclusion of IPM language into all new leases. A follow-up or

enforcement plan will need to be developed for these and other similar city-owned properties that are privately maintained.

One barrier to further decreases in the use of chemical herbicides on Port property is the small number of landscape staff – a single position has been allocated. While the Port's landscape gardener has done an excellent job of identifying priority areas of herbicide use, the Port could be a good model for effective use of additional resources to achieve greater pesticide reductions.

Public Works – An IPM plan is currently on file with DEnv and DPW's Safety staff are well informed as to program goals and requirements. The Public Works department has an excellent compliance record in both its buildings and landscape areas but the current vacancy in the position of landscape IPM Coordinator may jeopardize this model performance. Before the staffing vacancy, DPW was recognized for its weed prevention programs on median strips throughout the city by using both mulches and the planting of wild flowers. These efforts not only resulted in a decreased dependence on pesticides, but also greatly enhanced the aesthetics of public right of ways. DEnv is very concerned by the slow pace of filling this key IPM.

PUC – This department should serve as a model for IPM implementation not only within our City but across the country. The PUC received a Commendation from the Board of Supervisors for its leadership role in tracking pesticide use, identifying opportunities for reduction, and training of departmental staff. The PUC has allocated resources to purchase equipment and experiment with new technologies to achieve their goals of brush management, soil conservation, and water quality protection. It is interesting to note that while PUC staff might not label their efforts IPM, these goals are all shared in common with a successful IPM program.

There is currently some shifting of responsibilities for the overall departmental IPM program responsibility due to the transfer of a key staff person to the Water Treatment and Supply division. DEnv staff will continue to work with all the divisions of the PUC to make sure program oversight is not compromised.

Public Health – Key safety staff of the two hospitals, the clinics, and other Public Health properties are well on board with the IPM program. Landscape staff at San Francisco General Hospital use no pesticides to maintain their beautiful grounds. Laguna Honda Hospital has developed a well defined chain of command that can quickly respond to any pest emergency and implement needed sanitation changes or structural repairs.

A model IPM plan is near completion and several training sessions for custodial and maintenance staff are scheduled for the Spring. Achieving the high standard for pest control necessary in patient care facilities has been a challenge for the IPM program. Public Health staff have proven to be willing participants and are improving lines of communication between pest control contract staff and their own maintenance staff to facilitate the pest proofing repairs critical to program success.

Problems with existing contract language for pest control services will be addressed in the upcoming contract review process. DEnv staff have been working closely with staff from Public Health to ensure a smooth transition to a new pest control contract.

Rec/Parks – The Recreation and Parks Department is the most complex of all city departments affected by the IPM ordinance. The Department has realigned staff positions to create an IPM team of one coordinator and three specialists. This team is charged with both education and enforcement of the ordinance requirements. DEnv staff have been working closely with this department to facilitate reporting, coordinate training, and identify new pest control techniques consistent with an IPM program.

The Rec/Parks department is the only city department to do structural pest control in-house. Structural pest control services for all Rec/Parks buildings (except for the Pools) are done by the three IPM specialists. Compliance with the ordinance is excellent but the lack of a quality assurance program raises concerns over the effectiveness of their pest control measures.

Results of pesticide use reports:

The increase in the pounds of pesticides used from 1998 to 1999 can be explained by the introduction, on a trial basis, of the reduced risk herbicide, Suppressa. Suppressa is a relatively new product made from corn gluten meal - a food grade substance that in large enough concentrations seems to suppress weed growth and germination.

While the numbers indicate a general decrease in the amount of pesticide used on City property and most of the products with the greatest human health and environmental impacts have been eliminated, there remains a need to examine the Department's decision making process and potential barriers to further implementation of non-chemical pest control methods. DEnv staff can not do this analysis alone. Rec/Parks staff must carefully look at each pesticide use decision and identify trends that explain use patterns. Rec/Parks staff must specify where additional resources would result in the most significant decreases in pesticide use.

A new IPM Coordinator for Rec/Parks will be starting at the beginning of the coming fiscal year. This position is critical to the success of the Department's IPM efforts. The individual must be given the authority to regulate pesticide use and must have the support of the Parks administration to say no to requests for pesticide applications. DEnv staff have been invited to work with Rec/Parks in the selection of potential candidates for this position.

Future Directions

Newsletter – Several members of the TAC have requested the creation of a citywide newsletter that publicizes the IPM program to city employees. Perhaps the IPM program could piggy-back on the efforts of the Department of Consumer Assurance (formerly County Agricultural Commissioner's Office) who plans on starting a newsletter or could

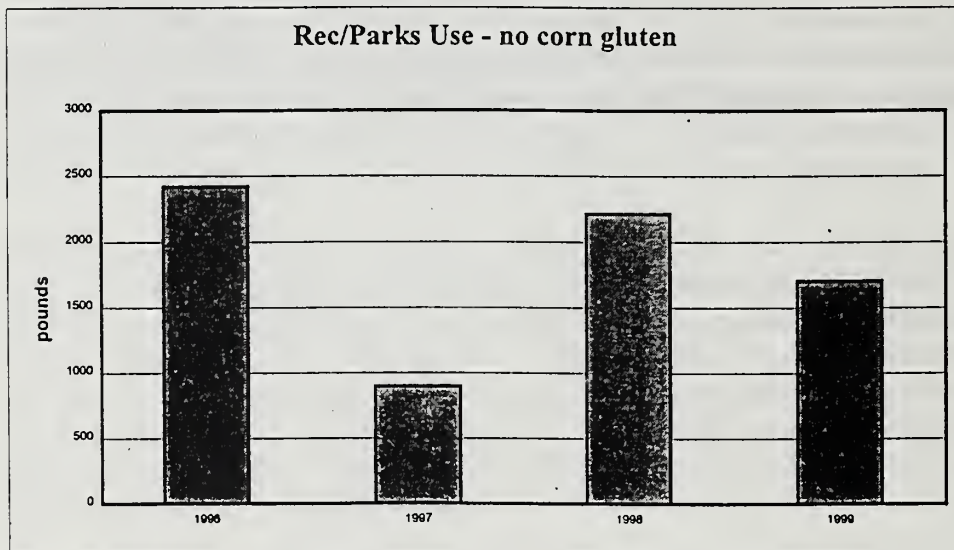
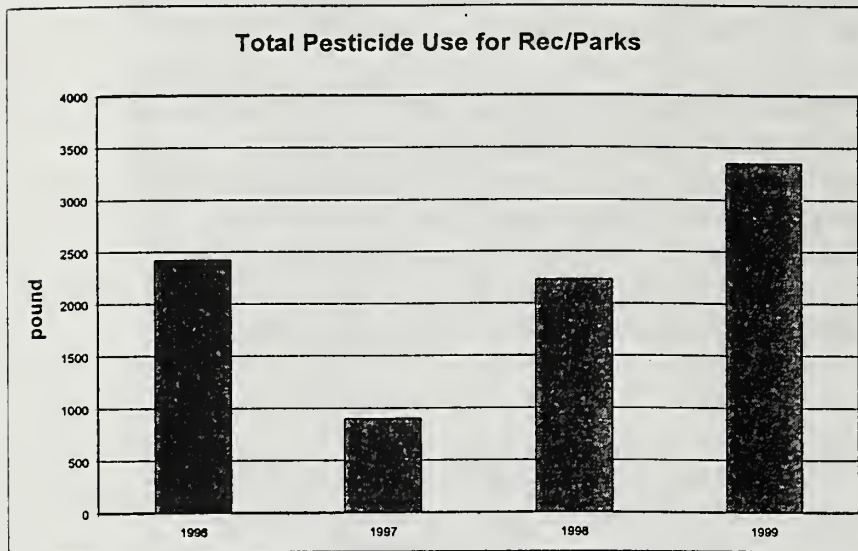
insert articles on IPM into a broader environmental newsletter coming out of the Department of the Environment. Newsletters can become an excellent channel for communicating specific pest control techniques that can be used by staff both at work and at home. It would also serve to highlight the efforts of some of our local IPM "hero's".

Advisory Committee – Except for the on-going involvement of Pesticide Watch, there seems to be no formal or regular process for public input into the IPM Program. Considering the very public nature of this program's conception, the lack of public input could be seen as a significant oversight. DEnv staff, along with the Director of the department will explore the creation of a more formalized public input process, perhaps an advisory committee. Experience with the ad-hoc committee for the Approved List indicates both the level of public interest in this idea as well as the potential for constructive contributions.

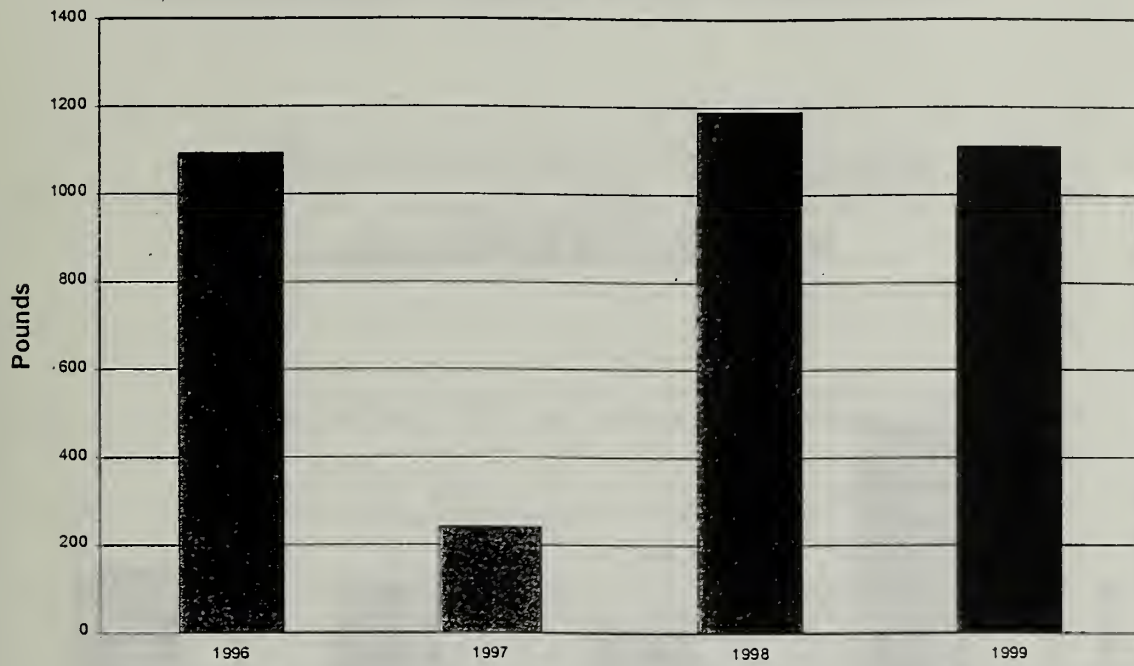
Public Notification - There is a need to tighten up record keeping at individual sites so that site managers can document pest infestations and will have a record of all pest control measures currently in use within their building. With the start of a new pest control contract, emphasis will be given on pest control notebooks being placed in each city building. These notebooks would contain pest sighting logs, records of pest control measures, and labels and material safety data sheets for each pesticide used within a building.

Trends in Pesticide Use

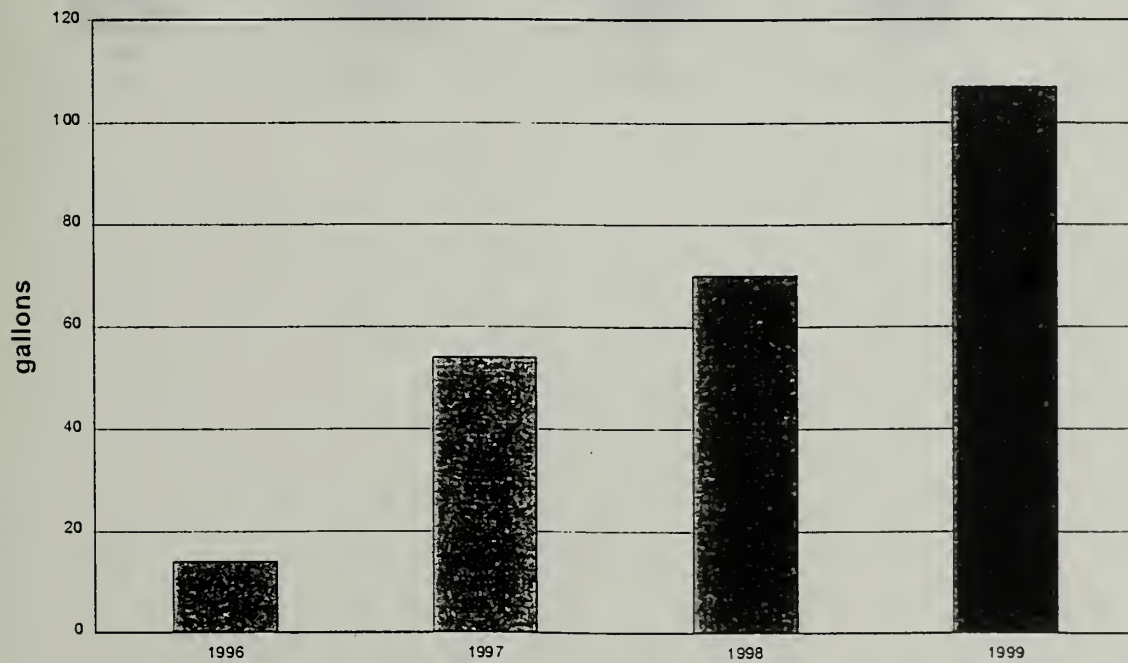
Recreation and Parks Department



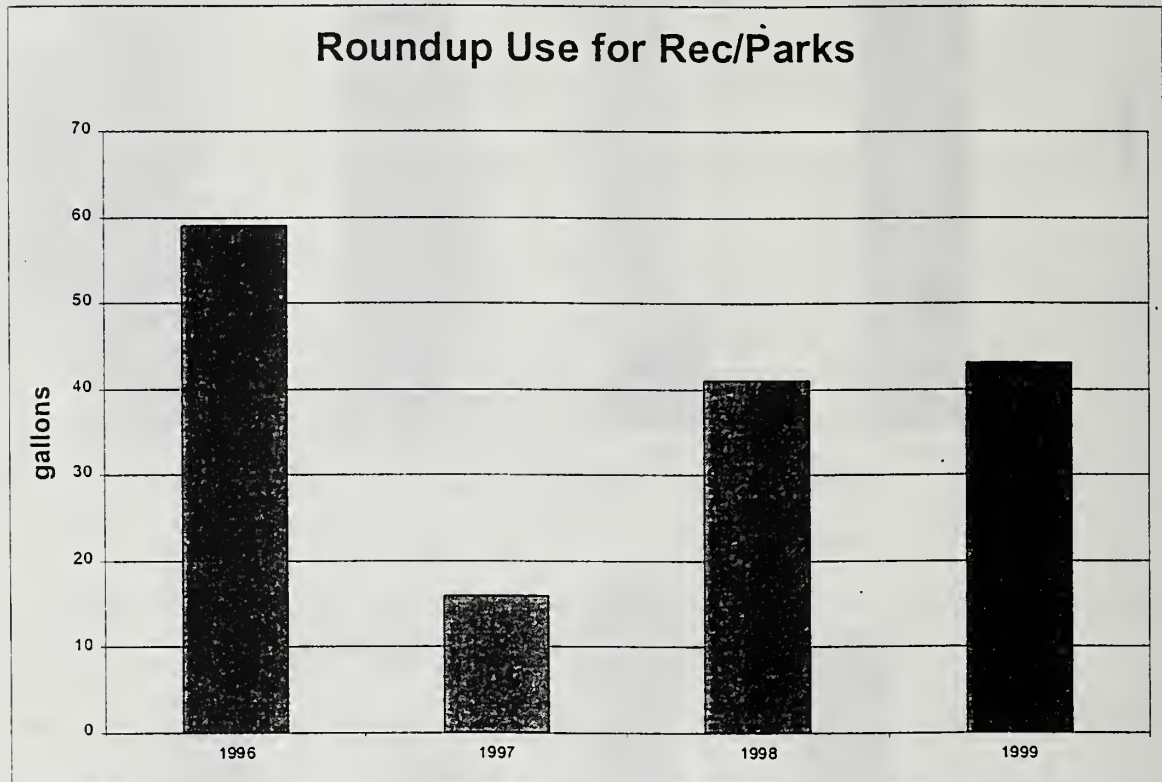
Golf Course Pesticide Use (pounds)



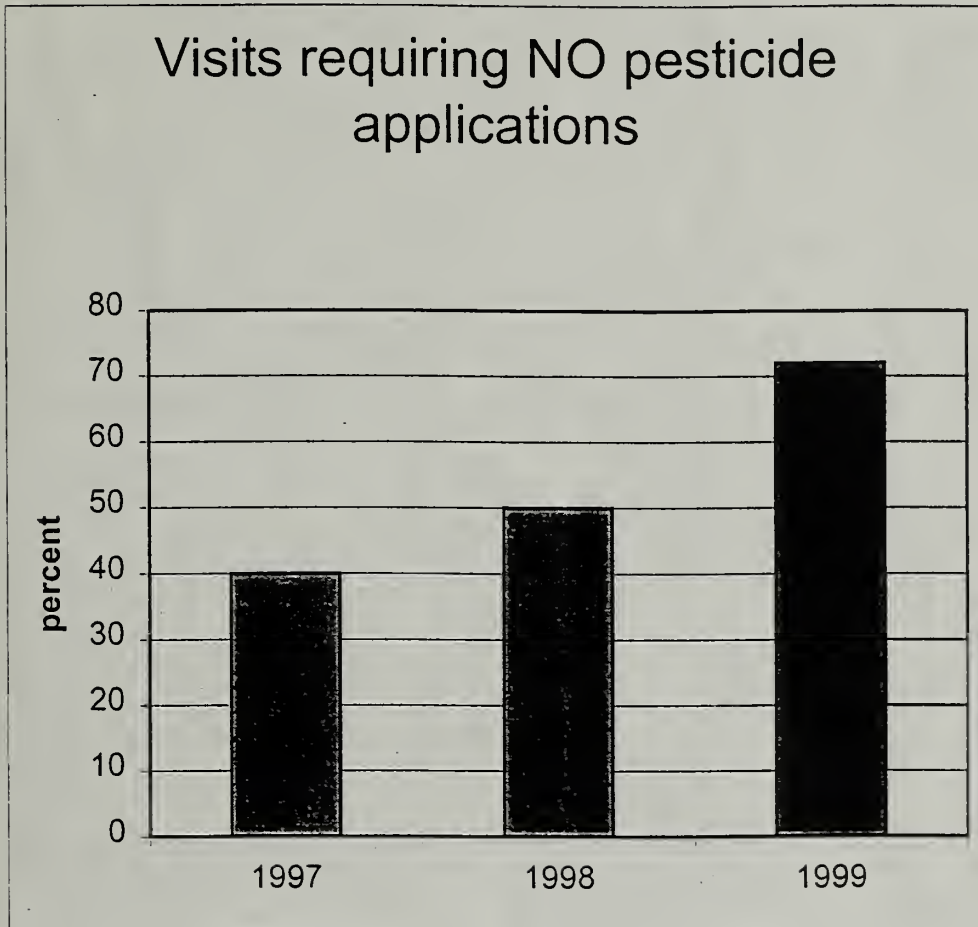
Golf Course Pesticide Use (gallons)



Trends in Roundup Use Recreation and Parks Department



Trends in Indoor Use of Pesticides



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